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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,572	10/13/2004	Tomoaki Ito	00682P00700US	4505

32116 7590 05/04/2006

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER
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CHICAGO, IL 60661

EXAMINER

ROMAN, LUIS ENRIQUE

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 05/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/511,572

Applicant(s)

ITO, TOMOAKI

Examiner

Luis Roman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Objections

Specification

In page 6 line 13 a magnetic body is referenced with number 4

In page 7 line 16 a coil is referenced with number 4.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 & 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Helfrick (US 4730230).

Regarding claim 1 Helfrick discloses a recorded data eraser for a magnetic storage device defining in a main body thereof a cavity for insertion of the magnetic storage device in the cavity (Abstract) and comprising: a generator for generating a magnetic field so as to erase recorded data in the device inserted in the insertion cavity (Col. 4 lines 20-27); and a magnetic body arranged within the magnetic field generated by the generator (Col. 4 lines 53-57).

Regarding claim 2 Helfrick discloses the recorded data eraser as defined in claim 1.

Helfrick further discloses adapted to maintain a magnetic flux density in the insertion cavity within the range of 6,000 to 15,000 gauss in erasing data in the device (Col. 6 lines 1-13). One of the basic formulas of magnetism teaches that $B = \mu \cdot H$; where B is the magnetic induction [Gauss], μ is the permeability and H is the magnetic coercivity [Oersteds]. In the case of air $\mu = 1$ for most materials this value is 1.25 or greater. As a result a magnetic coercivity of 5,000 Oersteds will result in 6,000 Gauss or greater magnetic induction.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helfrick (US 4730230) in view of Schultz et al. (US 5959824).

Regarding claim 3 Helfrick discloses the recorded data eraser as defined in claim 1 or 2.

Helfrick does not disclose wherein the generator comprises a coil arranged so as to encircle the magnetic storage device inserted in the insertion cavity and a direct-current power supply circuit for exciting the coil.

Schultz et al. teaches wherein the generator comprises a coil arranged so as to encircle the magnetic storage device inserted in the insertion cavity (Figure 2) and a direct-current power supply circuit for exciting the coil (Col. 2 lines 37-46 & Col. 9 lines 64-67).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Helfrick device with the Schultz et al. device features because this way the eraser covers the magnetic storage in its totality to assure a highly reliable erasing of the data recorded. Moreover, the direct current erasing protects the medium against dispersion of initial magnetization.

Claim 4 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helfrick (US 4730230) in view of Schultz et al. (US 5959824) and von Huene et al. (US 5255139).

Regarding claim 4 Helfrick in view of Schultz et al. discloses the recorded data eraser as defined in claim 3.

Helfrick further discloses wherein the main body of the eraser comprises a casing of a box shape with its front face open and a lid for closing the opening of the casing openably and closably (Col. 4 lines 25-29).

Schultz et al. further discloses wherein the casing accommodates a hollow coil spool (Figure 1A element 6), with its internal space functioning as the insertion cavity and the coil wound around the outer periphery of the spool (Figure 1C element 16), such that an opening of the internal space faces to the opening of the casing (Figure 1A element 3).

Helfrick in view of Schultz et al. does not disclose wherein the casing and the lid functions as the magnetic body.

Von Huene et al. teaches degaussing of a magnetizable storage medium inside a magnetic body.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Helfrick device in view Schultz et al. with the Von Huene et al. device features because reduces flux loss which retards the process of erasing.

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Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helfrick (US 4730230) in view of Schultz et al. (US 5959824) and Golikov et al. (DERWENT 1996-170511).

Regarding claim 5 Helfrick in view of Schultz et al. discloses the recorded data eraser as defined in claim 3.

Schultz et al. discloses a direct-current converter for converting an alternating current into a direct current of a predetermined voltage and a demagnetization coil (Col. 2 lines 37-46 & Col. 9 lines 64-67 & Fig. 3 elements 24, 42), and a switching device (Fig. 3 element 52).

Helfrick in view of Schultz et al. does not disclose a capacitor charged by an electric power supply from the current converter and connected in parallel with the coil, an a reactor interposed in an input line from the direct-current converter to the capacitor.

Golikov et al. teaches a capacitor charged by an electric power supply from the current converter (Fig. element 4) connected in parallel with the coil, an a reactor interposed in an input line from the direct-current converter to the capacitor (Fig. inductor on top-left of element 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Helfrick device in view Schultz et al. with the Golikov et al. device features because introduces smoothing to the direct-current eliminating ripple.

Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Helfrick (US 4730230) in view of Schultz et al. (US 5959824), von Huene et al. (US 5255139) and Golikov et al. (DERWENT 1996-170511).

Regarding claim 6 Helfrick in view of Schultz et al. and von Huene et al. discloses the recorded data eraser as defined in claim 4.

Schultz et al. discloses a direct-current converter for converting an alternating current into a direct current of a predetermined voltage and a demagnetization coil (Col. 2 lines

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37-46 & Col. 9 lines 64-67 & Fig. 3 elements 24, 42), and a switching device (Fig. 3 element 52).

Helfrick in view of Schultz et al. does not disclose a capacitor charged by an electric power supply from the current converter and connected in parallel with the coil, an a reactor interposed in an input line from the direct-current converter to the capacitor.

Golikov et al. teaches a capacitor charged by an electric power supply from the current converter (Fig. element 4) connected in parallel with the coil, an a reactor interposed in an input line from the direct-current converter to the capacitor (Fig. inductor on top-left of element 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Helfrick device in view Schultz et al. with the Golikov et al. device features because introduces smoothing to the direct-current eliminating ripple.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luis E. Román whose telephone number is (571) 272 – 5527. The examiner can normally be reached on Mon – Fri from 7:15 AM to 3:45 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x 36. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from Patent Application Information Retrieval (PAIR) system.

Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LR/040806

Luis E. Román
Patent Examiner
Art Unit 2836



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